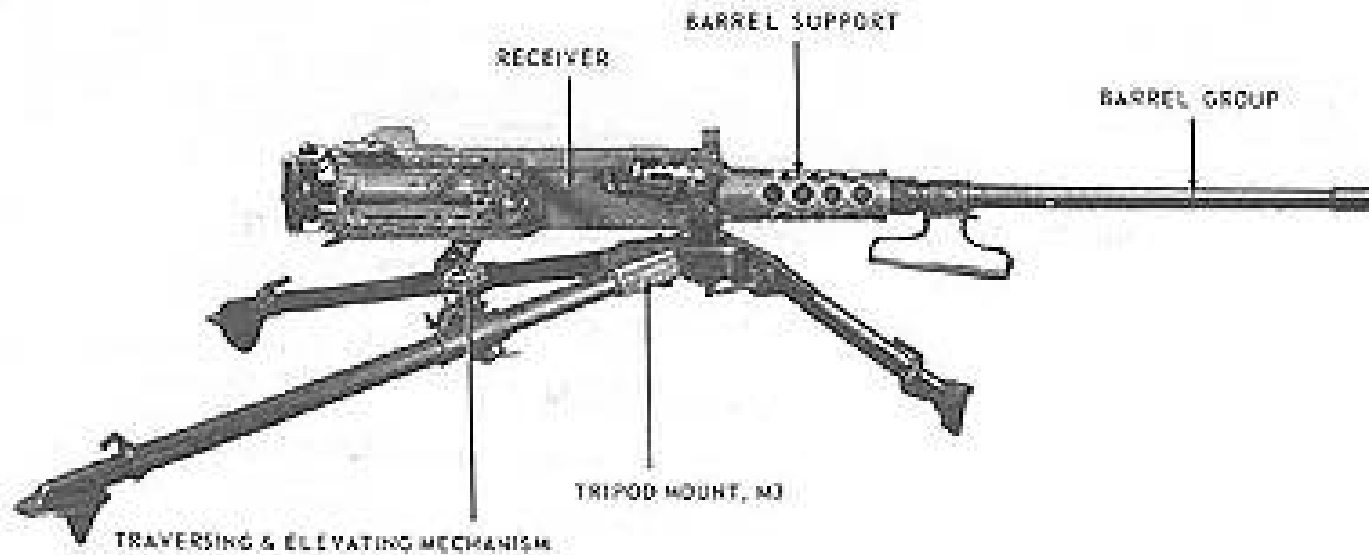


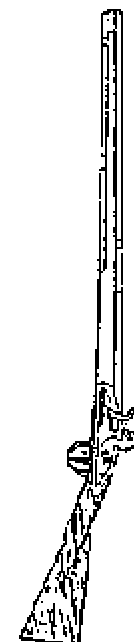
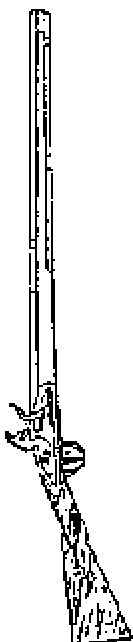
REACH WAYYYY OUT -

***- Today's .50 Caliber Precision
Riflery***

--by Keith Pagel, FCSPi & Buddy Clifton, FCSA

This isn't about your father's .50 caliber!!





Nor is it about muzzleloading

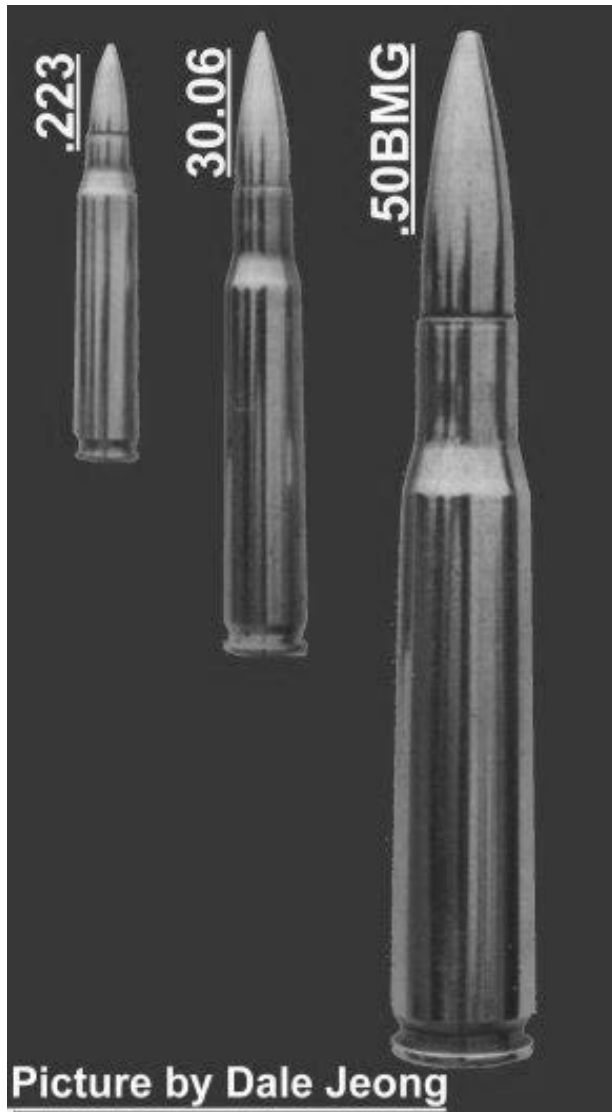


What we are talking about is long-range (1000 yd), bench-rest, match (competition) shooting utilizing the military's .50 BMG (Browning Machine Gun) cartridge, but in precision (custom) rifles.



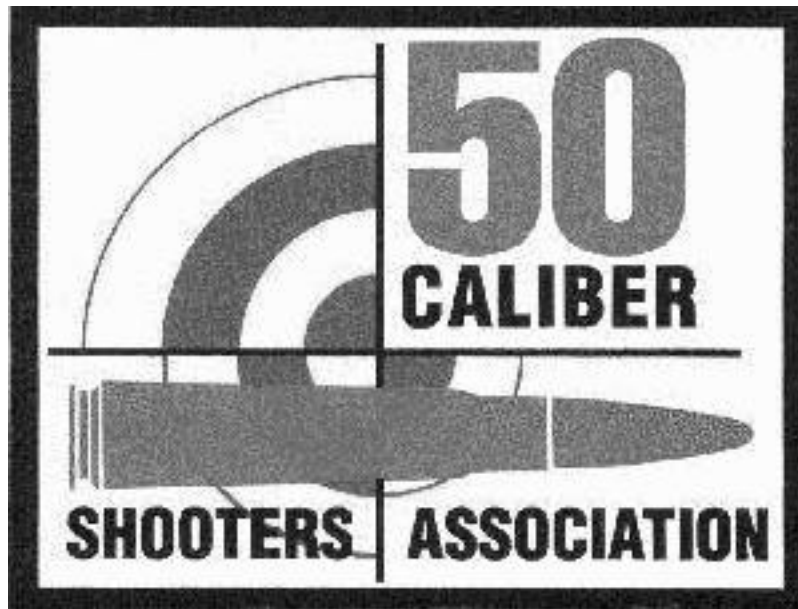
- **.50 BMG historically viewed as machine gun, not rifle cartridge**
- **Limited work as rifle cartridge conducted in Korea & Viet Nam**
- **Civilian successes provided impetus to field .50 BMG cartridge as a rifle caliber**





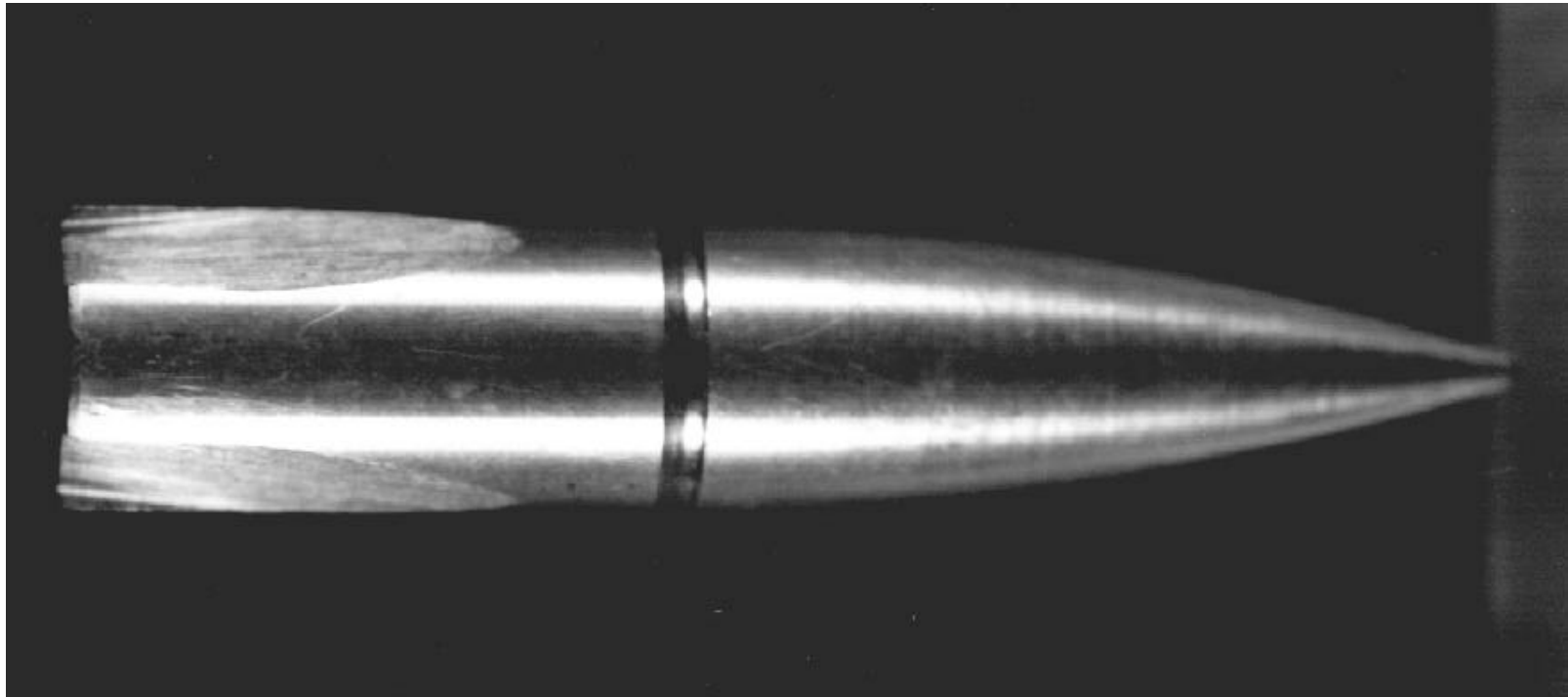
- **Civilians viewed caliber as challenge**
- **Outstanding ballistic potential**
- **Largest caliber not requiring federal destructive device (“cannon”) permits**
- **An “Extreme Sport”**

Fifty Caliber Shooters' Assn.



- International sanctioning body
- Chartered to “*Promote the civilian sporting uses of the .50 BMG cartridge*”
- Non-profit chartered in Tenn.
- Established in 1985
- 2,300 members in all 50 states & 15 foreign countries
- Publishes “Very High Power Magazine” quarterly
- Members: Civilians, Lawyers, Doctors, Machinists, Scientists, Military, Law Enforcement, R&D, etc.

Effective Extended Long - Range Projectile



EELR Stats :

- 780 grain Solid Brass
- Special Fluted Boat Tail
- Developed by Russ Anderson

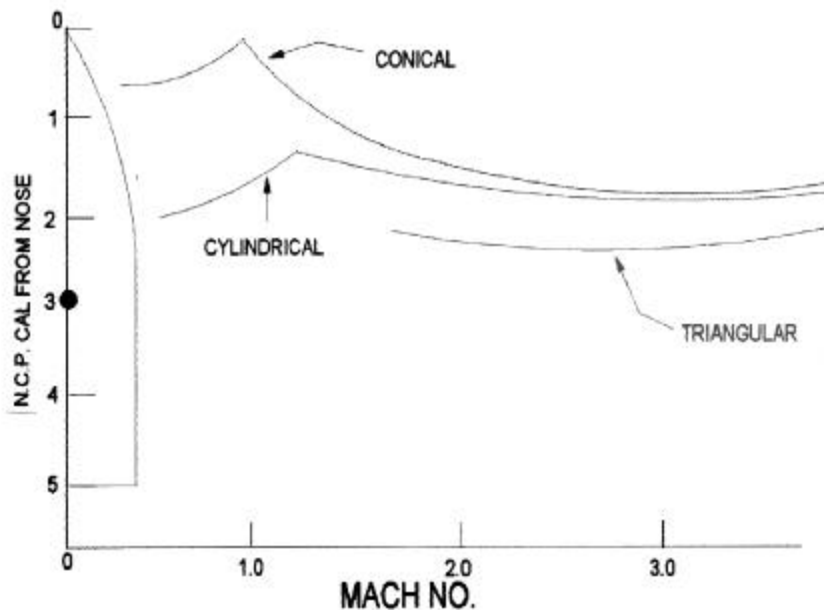


Figure 12. The Normal Force Center of Pressure on Improved Boattails

- Monolithic Solid Construction
- *“The only projectile with positive lift, designed to transcend transonic velocities”*

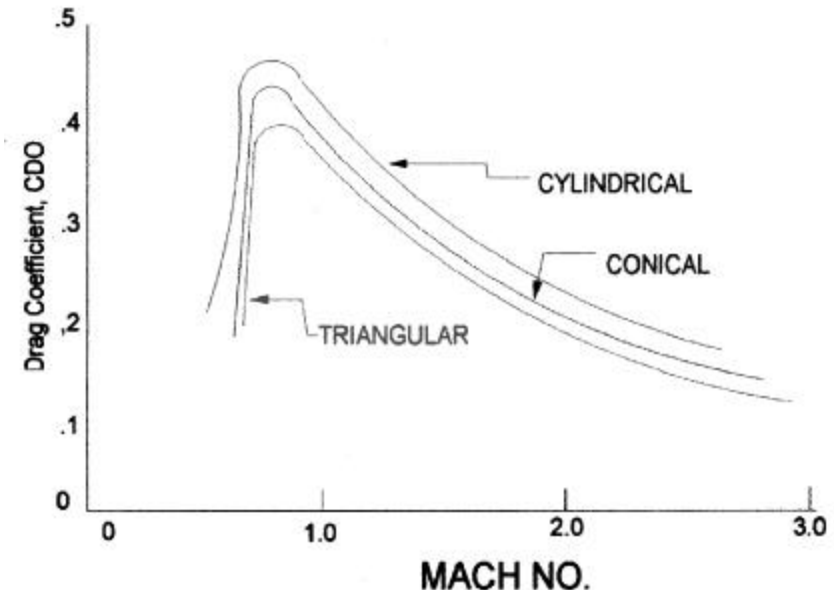


Figure 7. The Zero Yaw Drag of the Improved Boattail

.50 DTC Europe Caliber Cartridge

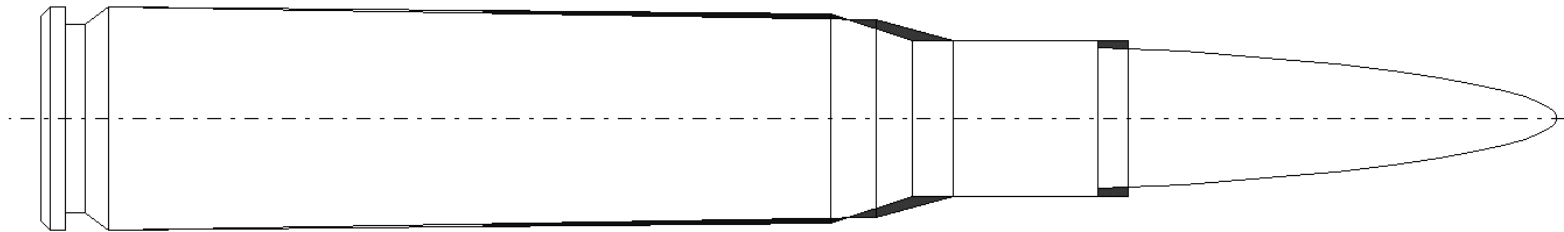
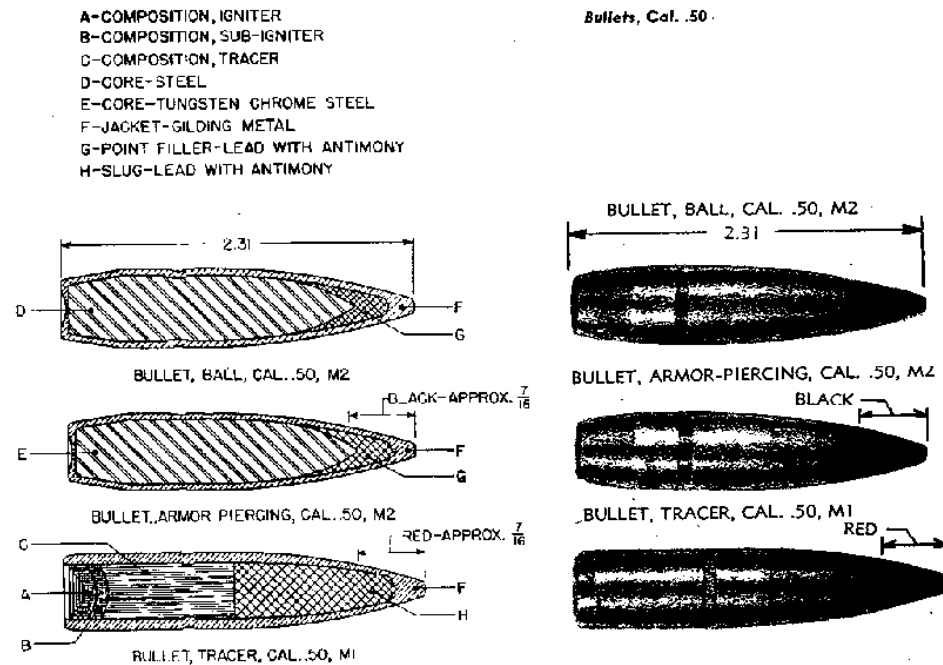


Photo courtesy QuickDESIGN -Hartmut Broemel

.50 DTC Euro Stats:

- Proposed European competition caliber
- Designed for countries prohibiting military caliber firearms
- Accommodates std .50 BMG projectiles
- Provides same case volume as 12.7x99
- Formed from BMG cases



- Will chamber in BMG rifles, but not vice versa
- 12.7x96 vs. 12.7x99
- Design by Eric Danis

Kyser Thunderbolt Wildcat Series



Kyser Thunderbolt Stats :

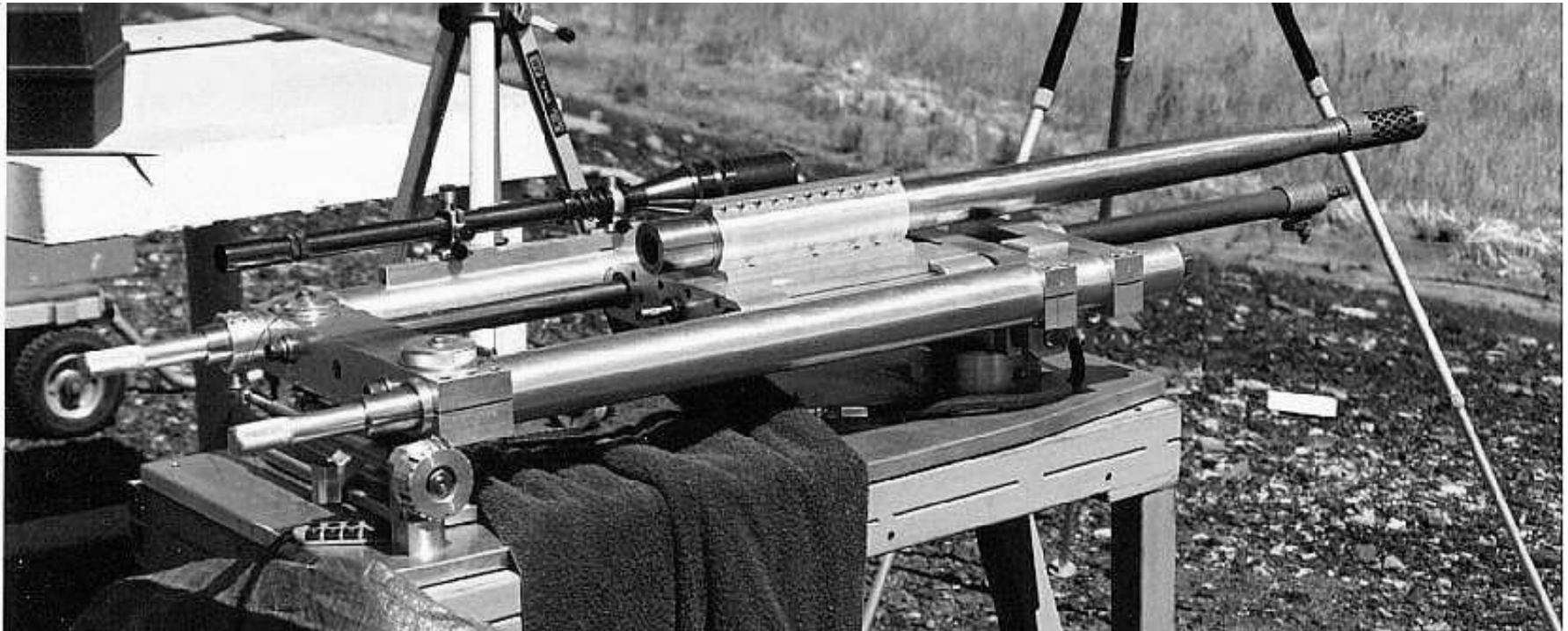
***Objective:** Explore the full spectrum of capabilities in the BMG case*

***Conclusion:** Potential currently limited by available powders*

- BMG cases 99 and 84 mm
- Tested projectile calibers .375, .416, .458, .510, & .700
- Tested six different powders
- Concept by Monte Kyser



Sophisticated “Rail-Gun” Systems



“The proof is in the pudding”

Year	Group	Shooter	State
1986	9.3125 "	E. Williams	MS
1991	8.7500 "	B. Seiler	MT
1991	7.1875 "	A. Guidi	MA
1991	6.8125 "	D. Chapman	TX
1991	4.2500 "	S. Talbot	NV
1992	4.0340 "	S. Talbot	NV
1995	3.2395 "	C. Taylor	WA
1999	2.6002 "	S. Talbot	NV

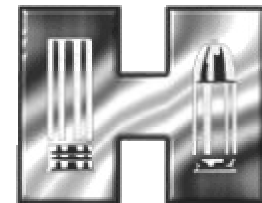
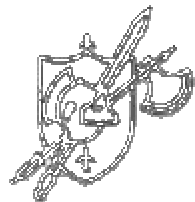
.50 Caliber World Records - 5 round group / 1000 yards

FCSA Liaison Program Office



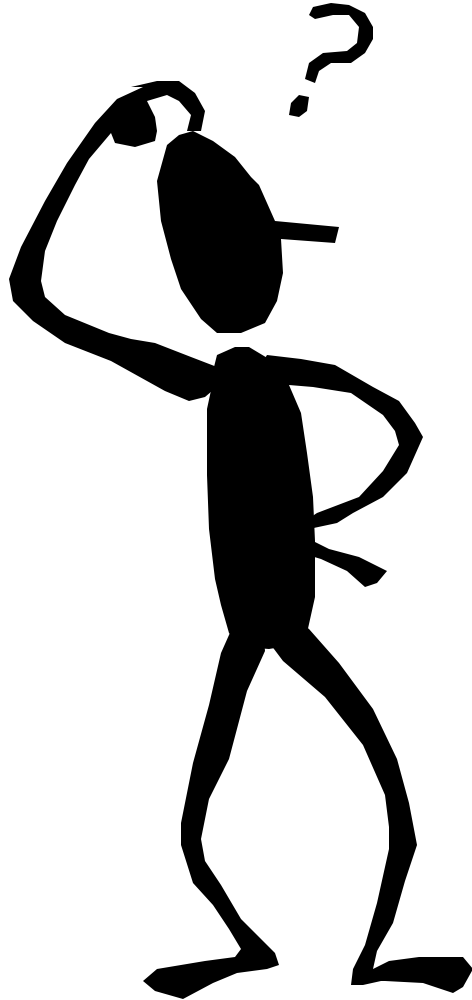
“Single Point of Contact” for :

- **Military** - US Army, Navy, Air Force, Marine Corps, Coast Guard
- **Law Enforcement** - Federal, State, Local agencies
- **R&D** - Defense & Sporting Firearms Industries



Bottom Line ?

(Or “What’s all this mean to me?”)



Civilian .50 caliber sport is:

- *On-going work*
- *Thinking “Out of the Box”*
- *In a number of fields, simultaneously*
- *Funded by sources other than corporate R&D departments or taxpayer’s money*
- *Made available to defense & law-enforcement communities*
- *At little or no cost*
- *To improve the performance, safety, & chances of success for military & police users of .50 BMG caliber tactical rifles*
- *Resulting in more civilian, police, & military customers = more \$\$\$\$*

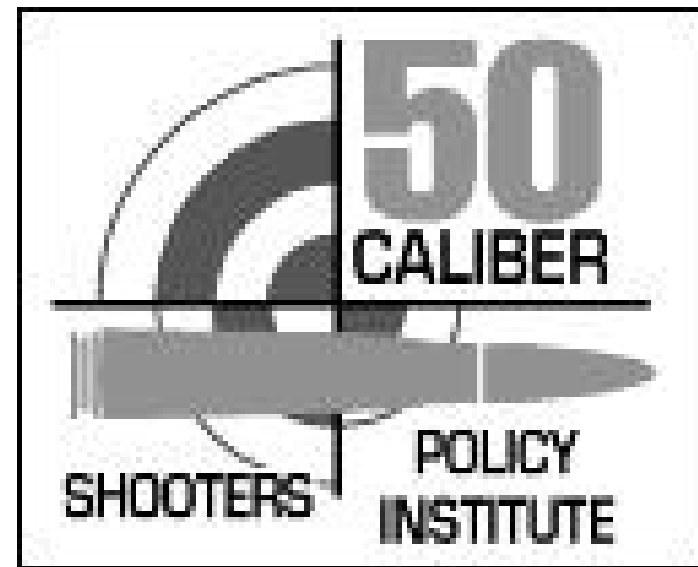
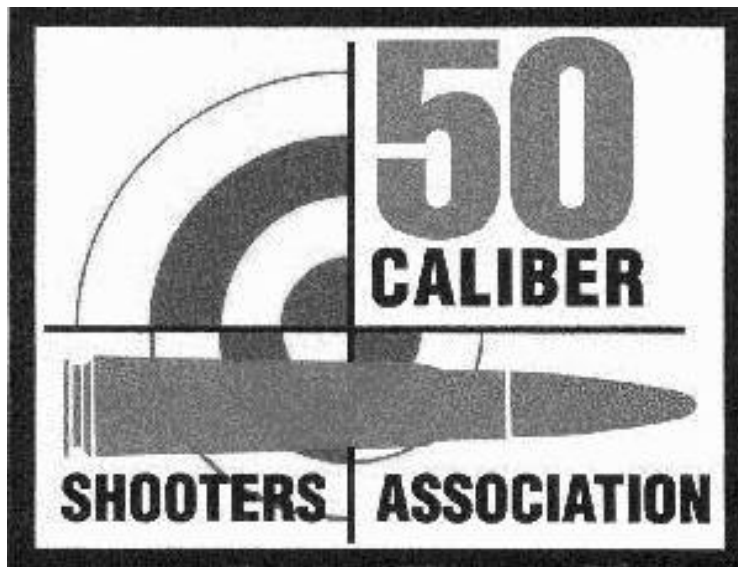
For further information, zero in on our web sites :



www.FCSA.org

www.50cal-policy.org

This concludes our presentation.



Thank you for your attention.